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S/N:

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10/761,613

Docket:

CS03-050

Reply to the Office Action dated 10/04/2005

Page 3

2	AMENDMENTS TO THE SPECIFICATION
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4	
5	Please replace the paragraph beginning at Page 9, Line 17 with the following rewritten
6	paragraph (showing changes):
7	
8	There are many options for the order sequence of the steps for forming
9	the LDD, S/D, Halo, threshold voltage I/I and doped depletion regions. Furthermore, the
10	process can include steps to dope the upper portion of the substrate (e.g., first doped region
11	131), especially in the area between the S/D 150 and doped depleted regions 130. For
12	example, field implants, Vt implants, hallo implants can be performed to dope the first
13	doped region 131. These The order of these step-steps is only limited by feasibility.
14	
15	Please replace the paragraph beginning at Page 12, Line 4 with the following rewritten
16	paragraph (showing changes):
17	
18	Isolation regions 102, as shown in figure 12A, can be formed at any
19	point in the process. Isolation regions 102 are preferably shallow trench isolation (STI)
20	regions.
21	
22	
23	Please replace the paragraph beginning at Page 14, Line 9 with the following rewritten
24	paragraph (showing changes):
25	•
26	Preferably the doped depletion region has an a second type impurity
27	concentration slightly higher than the total first conductivity type dopants in the substrate
28	between the doped depletion regions 130 and S/D regions 150 or (first impurity doped

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- 1 region 131). Preferably the doped depletion regions 130 have an impurity concentration
- 2 high enough to counter act the opposite impurity concentration in the substrate so that a
- 3 portion of the lightly doped depletion region 130 has effectively a net impurity
- 4 concentration between 1E16 and 5E 18 atoms/cc. This portion of the doped depletion
- 5 region is electrically effectively an insulator (like a dielectric layer).

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